

1.7 REMOVAL OR DISMANTLING OF INSTALLED PLANT AND EQUIPMENT

Information provided by WM Building Services, the Mechanical Services

Mechanical Services

Removal of condensing unit from main office plant deck

1. Isolate all electrical supplies to plant and equipment.
2. Pump down and reclaim R410a refrigerant gas from the system.
3. Disconnect refrigeration pipework & electrical cabling from unit.
4. Use pallet truck to move condensing units to lifting area – maximum section 1.24m long x 0.74m wide x 1.86m high with a weight of 289 kg
5. There are 2No pallet lift locations on the plant deck that will provide a 1.75m clear opening equipment to be loaded by pallet truck to front of nearest loading bay.
6. Bring in specialist company with suitable forklift to allow forks to reach second floor.
7. Forklift route to be planned and segregation provided from level access doors to the lifting location.
8. Area around loading bay and lift area to be segregated and warning signs erected to avoid entry into the lift zone by unauthorised persons.
9. Extend forks into pallet gas and remove condensing units to ground level.
10. Use forklift to remove to suitable collection vehicle.

Removal of condensing unit from distribution office plant deck

1. Isolate all electrical supplies to plant and equipment.
2. Pump down and reclaim R410a refrigerant gas from the system.
3. Disconnect refrigeration pipework & electrical cabling from unit.
4. Remove hand rail whilst using inertia reels and harness.
5. Use pallet truck to move condensing units to lifting area – maximum section 1.75m long x 0.74m wide x 1.86m high with a weight of 337 kg
6. Forklift route to be planned and segregation provided from collection vehicle to the lifting area.
7. Area around loading bay and lift area to be segregated and warning signs erected to avoid entry into the lift zone by unauthorised persons.
8. Bring in specialist company with suitable forklift to extend into plant deck.
9. Remove condenser down to ground level into waiting collection vehicle.
10. Compressors, evaporator and condenser coil to remain untouched to avoid risk of gas discharge.

Removal of air handling units/extract fans from main office plant deck

1. Isolate all electrical supplies to plant and equipment.
2. Disconnect ductwork & electrical cabling from ventilation units.
3. Break down air handling unit three sections – maximum section 1.675m long x 0.95m wide x 1.95m high with a weight of 329 kg
4. There are 2No pallet lift locations on the plant deck that will provide a 1.75m clear opening equipment to be loaded by pallet truck to front of nearest loading bay.
5. Bring in specialist company with suitable forklift to allow forks to reach second floor.
6. Forklift route to be planned and segregation provided from level access doors to the lifting location.

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7. Area around loading bay and lift area to be segregated and warning signs erected to avoid entry into the lift zone by unauthorised persons.
8. Extend forks into pallet gas and remove air handling unit sections to ground level.
9. Use forklift to remove to suitable collection vehicle.

Removal of air handling units/extract fans from distribution office plant deck

1. Isolate all electrical supplies to plant and equipment.
2. Disconnect ductwork & electrical cabling from ventilation units. 3
3. Remove hand rail whilst using inertia reels and harness.
4. Break down air handling unit three sections – maximum section 1.475m long x 0.80m wide x 1.45m high with a weight of 212 kg.
5. Use skates to move unit to edge of plant deck
6. Forklift route to be planned and segregation provided from collection vehicle to the lifting area.
7. Area around loading bay and lift area to be segregated and warning signs erected to avoid entry into the lift zone by unauthorised persons.
8. Bring in specialist company with suitable forklift to extend into plantroom, using trained banksman.
9. Remove AHU sections to ground level into waiting collection vehicle.

Removal of warehouse air handling units from distribution office plant deck

1. Isolate all electrical supplies to plant and equipment.
2. Disconnect ductwork, pipework & electrical cabling
3. Break down air handling unit two sections – maximum section 2.2m long x 2.25m wide x 2.2m high with a weight of 1519 kg.
5. Use skates to move unit to edge of plant deck
6. Forklift route to be planned and segregation provided from collection vehicle to the lifting area.
7. Area around loading bay and lift area to be segregated and warning signs erected to avoid entry into the lift zone by unauthorised persons.
8. Bring in specialist company with suitable forklift to extend into plantroom, using trained banksman.
9. Remove AHU sections to ground level into waiting collection vehicle.

Removal of ASHP from external compound

1. Isolate all electrical supplies to plant and equipment.
2. Disconnect pipework & electrical cabling
3. Break down air handling unit two sections – maximum section 5.3m long x 2.25m wide x 2.4m high with a weight of 5100 kg.
5. Disconnect AV mounts from support frame.
8. Bring in specialist company with suitable hiab vehicle to lift and load the ASHP in one section onto delivery vehicle
9. Unit to be left in one piece to ensure gas charge is retained.

Removal of VRF cassette units to all office ceiling

1. Isolate all electrical supplies to plant and equipment.
2. Pump down and reclaim where necessary R410a refrigerant gas from the system.
3. Disconnect ductwork & electrical cabling from fan coil unit.
4. Remove 4No ceiling tiles and ceiling grid around the unit.
5. Using mobile scaffold tower disconnect the 4No drop rods from the unit and lower to scaffold platform – largest unit 0.84m long x 0.84m wide x 0.26m high with a weight of 21 kg.
6. Remove from scaffold platform and exit through access doors to ground level externally.

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Information provided by Walter Miles, the Electrical Services

Removal of Distribution Boards

Distribution boards and switch panels should be kept securely locked to prevent unauthorised access. Competent and authorised personnel should only be allowed to work on this equipment, and it is recommended that a permit to work system be implemented.

- 1 Isolate the incoming supply to the Distribution board (DB)
- 2 Test Incoming supply is dead using an approved method, lock off and fit warning notices.
- 3 Disconnect cables out of MCB's, neutrals and earths identifying cable circuit reference to aid with reinstallation.
- 4 Disconnect main incoming supply
- 5 Remove distribution board
- 6 Install new distribution board
- 7 Reconnect Incoming supply, checking polarity is correct.
- 8 Connect all cables into MCB's, neutrals and earths
- 9 Carry out dead testing on incoming and outgoing circuit cables
- 10 Re energise the supply
- 11 Live test circuits and record.

Replacement of light fittings

Within the Warehouse lighting has been provided which after a certain time may become faulty and fail but due to the height powered access equipment will be required.

- 1 Highlight the faulty light fitting on the as fitted drawing and identify the circuit reference or busbar. Working from the local fuse board or isolate the circuit or busbar supplying the fitting and carry out the necessary tests to confirm the circuit is dead. Lock off and fit warning notices to front of fuse board.
- 2 Use powered access equipment to gain height of the relevant lighting busbar. Carry out the necessary tests to confirm the circuit is dead. Lock off busbar end feed and fit warning notices
- 3 Using access equipment at the height of the light fitting disconnect the flexible cable and working with second person unscrew and remove the fitting from its bracket.
- 4 Lower light fitting.
- 5 Raise replacement light fitting and connect flex cable, ensuring polarity and connections are correct.
- 6 Replace protective device and electrical test circuit, turning the supply back on and removing any warning notices.